

REMARKS

In the Office Action, the Examiner indicated that claims 1-17 are pending in the application and the Examiner rejected all claims. The rejections are respectfully traversed below.

I. Rejection of Claims 1- 17 under 35 U.S.C. §103(a)

At pages 2-6 of the Office Action, the Examiner rejects claims 1-17 under 35 U.S.C. §103(a) based on a combination of Rose et al. (U.S. Patent No. 5,752,244) and Bowman-Anuah (U.S. Patent No. 6,256,773).

A. The Present Invention

The present invention is an asset locator (search engine) for locating software assets, code assets and the like that are stored in code repositories used by software designers. It provides the capability for the gathering of information about assets contained in the code repositories and the capturing of the gathered information in a database that can be used for the conducting of subsequent searches. The present invention has particular application in a software-development environment where the stored code assets may number in the millions and may be written in diverse languages such as, for example, Java, C/C++, COBOL, HTML, and/or XML.

A crawl process is performed on a storage device on which assets are stored to identify the assets. Asset-specific parameters related to the stored assets are identified, and the assets are then analyzed based upon these parameters. Textual and semantic

information is extracted from the stored assets and then the extracted textual and semantic information is stored and indexed for retrieval.

In a preferred embodiment, a series of data analyzers that are specific to each type of data contained in the code repositories (e.g., a Java analyzer, a C/C++ analyzer, a COBOL analyzer, an HTML analyzer, and/or an XML analyzer) are integrated into the system so that they can be used to search the code repositories using particular attributes specific to the semantics of a particular language used to code the asset. In another preferred embodiment, the repositories are crawled automatically according to a schedule defined by the user, and the results of the crawling are stored in a database. Ordinary keyword searching can then be used with the system, either independently or combined with the attribute-specific semantic searching, to search the database.

B. Rose et al.

U.S. Patent No. 5,752,244 to Rose et al. ("Rose") teaches a method, apparatus, and article of manufacture providing computerized management of multimedia assets of various types, including image, video, audio, text, and program code media types. Multimedia assets are checked into a computer system along with specified characteristics and identification information for the assets. Each asset is categorized according to a plurality of asset characteristics and asset identification information using predefined fields for the characteristics and identification information. In this manner, common characteristic and identification information is available for all files regardless of their type. The information to be searched is input manually and the resulting database is searched using web browser 46.

C. Bowman-Anuah

U.S. Patent No. 6,256,773 to Bowman-Anuah teaches a system, method and article of manufacture for affording consistency in a development architecture framework as components in the framework change. The Examiner relies upon Bowman-Anuah solely for the disclosure in column 4, lines 22-29, repeated herein in its entirety:

“OOP allows the programmer to create an object that is a part of another object. For example, the object representing a piston engine is said to have a composition-relationship with the object representing a piston. In reality, a piston engine comprises a piston, valves and many other components; the fact that a piston is an element of a piston engine can be logically and semantically represented in OOP by two objects.”

D. The Examiner has not Established a *prima facie* Case of Obviousness

As set forth in the MPEP:

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. MPEP 2143

To support a rejection under 35 U.S.C. §103, a reason, suggestion, or motivation to lead an inventor to combine two or more references must be found. *Pro-Mold and Tool Co. v. Great Lakes Plastics Inc.*, 37 U.S.P.Q.2d 1627, 1629 (Fed.Cir. 1996). The Examiner has not met her burden in establishing a reason, suggestion, or motivation for combining the cited references.

The Examiner asserts that claims 1-17 are unpatentable under 35 U.S.C. § 103(a) based on Rose et al. in view of Bowman-Anuah.

While the Examiner has made assertions regarding the claims and alleges teaching of various claim elements in Rose and/or Bowman-Anuah, a reading of the cited portions of the patents does not support the Examiner's conclusion.

1. Rose

The Examiner asserts that the web browser 46 of Figure 4 of Rose identifies the performance of a crawl process. However, as is well known in the art, a web crawler is used to build a database while a web browser, such as web browser 46, is used to search the database. In the invention of Rose, the database is developed manually by having users input information into specific categories which are then used for search fields. In other words, Rose does not disclose at all the performance of a crawl process, as is claimed in independent claims 1 and 7.

Similarly, the Examiner asserts the following language from column 22, lines 18-21 of Rose teaches the claimed "identifying asset-specific parameters related to said stored assets" and "storing and indexing said extracted textual and semantic information for retrieval parameters":

"As illustrated in FIG. 16b, the information retrieved and displayed can include the information contained in the following database fields in the asset's record: name; asset_type; filename; description; add_chg_desc; size; creation_date; creator_id; modified_date; copyright; copyright_info; and format."

Contrary to the Examiner's assertion, however, this section of Rose does not teach the identification of asset-specific parameters related to stored assets, nor the storing and indexing of extracted textual and semantic information for retrieval parameters, both of which are recited in independent claims 1 and 7. This section of Rose merely states that information retrieved and displayed by the system of Rose can include the information

contained in the listed database fields. There is nothing novel about this and it does not teach the claimed elements asserted by the Examiner.

In addition, the Examiner asserts that the following cited section from column 22, lines 24-28 of Rose, teaches the claimed “analyzing said stored assets based on said identified asset-specific parameters”:

“The user can select all of the icons 162 displayed in the search results area 160 by selecting the “all” button at the bottom of the browse dialog box 46. The user can reset, i.e., remove, the selection of all icons 162 by way of the “none” button at the bottom of the browse dialog box 46.”

This section provides no disclosure of analysis of stored assets, as is specifically claimed in independent claims 1 and 7. Instead, it simply discloses that a user can select or deselect all of the icons displayed in a search area with a single click of the mouse.

Based on the above, it is clear that Rose does not teach or suggest the present invention.

2. Bowman

The Examiner acknowledges that Rose does not disclose extracting semantic information from stored assets.

The addition of the Bowman reference does not render the claimed invention obvious. Like Rose, Bowman contains no teaching of the performance of a crawl process on stored assets; the identification of asset-specific parameters related to the stored assets; the analysis of the stored assets based on identified asset-specific parameters; the extraction of textual information from the stored assets; and the storing and indexing of the extracted textual information for retrieval. In addition, contrary to the Examiner’s assertion, Bowman does not teach or suggest the extraction of semantic information from stored

assets. The above-cited section from Bowman does use the term “semantically”.

However, the cited paragraph from Bowman merely describes the well known concept of object-oriented programming that two objects can be used to represent two similar or relationally connected elements, in this example, a piston and a piston engine. The mere use of the term “semantically” does nothing to teach or suggest the extraction of semantic information from stored assets.

As noted above, none of the claimed elements of independent claims 1 and 7 are taught or suggested by Rose or Bowman, either alone or in combination. The dependent claims contain additional limitations which are also not taught or suggested by Rose and/or Bowman. In addition, the Examiner’s specific assertion regarding the dependent claims and the alleged teachings of Rose and/or Bowman respecting these limitations are incorrect as well. For example, column 1, line 65 to column 2, line 5 of Rose do not teach the extraction of semantic information specific to the asset type of each stored asset. Further, column 25, lines 33-47 of Rose do not teach or suggest asset-specific parameters comprising languages in which each code asset is written, in the context of the claimed invention. The same holds true of the Examiner’s rejection of the remaining dependent claims. This fact, in addition to the clear lack of teaching or suggestion of the subject matter of independent claims 1 and 7, renders all dependent claims in allowable condition as well.

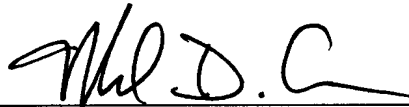
II. Conclusion

The rejection of claims 1-17 have been traversed. Accordingly, reconsideration of the present application, and withdrawal of the rejections on the grounds of 35 U.S.C. §103 is respectfully requested.

A Petition for extending the time to respond to the Examiner's Action one month is enclosed in duplicate. The Commissioner is hereby authorized to charge the extension and any additional fees associated with this communication to Deposit Account No. 09-0461.

Respectfully submitted,

1/4/03
Date



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